United States Environmental Protection Agency, Region III
CORRECTIVE ACTION PROGRAM

FINAL
RCRA SITE VISIT REPORT
Clean Harbors (Formerly Chemical Waste Management)
VAD988175055

7500 Harvest Road
Hopewell VA

Prepared for:

United States
Environmental Protection
Region III
1650 Arch Street
Philadelphia, PA 19103-4431

Virginia Department of
Environmental Quality
629 East Main Street
Richmond, VA 23219

Prepared by:

United States Army Corps of Engineers
Norfolk District
803 Front Street
Norfolk, VA 23510-1096

January 23, 2006

This RCRA SITE VISIT REPORT (Final) incorporates USEPA, VDEQ and Clean Harbors Comments to a DRAFT report and has been prepared by:

Robert S. Reali, P.E. — Date
Environmental Engineer
GeoEnvironmental Engineering Section

Approved by:

Cheryl L. Fromme, P.E. — Date
Section Chief
GeoEnvironmental Engineering Section

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RCRA SITE VISIT REPORT
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1.0 Purpose

The purpose of this site report is to consolidate relevant information from Clean Harbors Environmental Services (CHES) regarding the EPA ID Number VAD988175055. This information will be used to augment the existing facility information.

2.0 Documentation Review

Ms. Cheryl Fromme, P.E. and Mr. Robert S. Reali P.E. of the U. S. Army Corps of Engineers (USACE), Norfolk District conducted a documentation review at the Virginia Department of Environmental Quality (VDEQ) Central Office in Richmond, Virginia. A similar file review was conducted at the Environmental Protection Agency (EPA) Region III Philadelphia office. The purpose of this review was to identify known Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) prior to visiting the site.

3.0 Site Visit

An onsite meeting and a site visit was conducted on August 30, 2005 to discuss the CHES Hopewell, VA Facility. A list of Attendees at that site visit is as follows:

Name	Organization/ Position	Telephone	e-mail
Denis Zielinski	EPA Region III RPM	(215) 814-3431	zielinski.denis@epa.gov
Maria Williams	RCRA VDEQ Corrective Action	(804) 698-4211	mswilliams@deq.virginia.gov
Mohammad R. Habibi	VDEQ Compliance	(804) 527-5153	mrhabibi@deq.virginia.gov
Cheryl Fromme	USACE Norfolk District	(757) 201-7142	Cheryl.l.fromme@usace.army.mil
Robert Reali	USACE Norfolk District	(757) 201-7098	robert.s.reali@nao02.usace.army.mil
Mannie Bell	Clean Harbors – Compliance Manager	(978) 685-2124 x 5342	bellm@cleanharbors.com
John DiCarlo	Clean Harbors- General Manager	(800) 364-5939	dicarloj@cleanharbors.com

4.0 Meeting Summary

The meeting began at 9:30 on September 1, 2005 at the CHES Hopewell Facility. where Mr. Zielinski opened the meeting by reviewing the purpose and anticipated outcomes of the visit, the EPA's Facility Lead Agreement (Appendix A) and the RCRA Corrective Action Program. The EPA's Facility Lead Agreement was described as a process in which all the requirements of the Corrective Action Program can be met by a facility through a non-binding, non-enforceable agreement in *lieu* of consent orders or permits. Mr. Zielinski stated that CHES' Part A Application submitted on January 20, 1992 was the trigger for the facilities inclusion on the Corrective Action list.

Ms. Williams of the VDEQ Corrective Action Program also discussed Virginia's Brownfields Program as well as the Virginia Clean Water Revolving Loan fund where low interest Brownfield loans can be acquired for corrective actions that remediate or protect waters (surface or groundwater) in the Commonwealth of Virginia.

CHES Facility personnel provided a brief overview of facility processes, prior releases, corrective actions, and then lead a tour of the facility during which they answered questions regarding specific site features. The most significant document discussed that was not found during the file reviews was a Phase II site assessment performed by Dames and Moore prior to CHES purchasing the site. CHES personnel indicated that they would provide copies of that report.

5.0 Location, summary of operational and management history of the facility including a description of wastes generated at the facility

The facility began operation as BelPar Environmental, and was acquired by Chemical Waste Management (CWM) of Oak Brook Illinois who initiated the Hazardous Waste Permit, and finally by Clean Harbors in 1994 who has operated the facility since September 30, 1994. The 4.3-acre property is leased from A.A. Forbes of Prince George, Va. who owns the Forbes Industrial Park. Only 1.3 acres of the property is used for site operations.

The CWM Facility provided many different services to producers of hazardous and non-hazardous waste. Lab packaging, underground storage tank removal and installation, processing, storage and transportation of waste were among the services offered. The facility also accepted and processed waste oil, which was then shipped offsite for disposal or recycling.

Currently the tank and waste-processing farm is out of service. The site now serves as a CHES service center. Storage of hazardous and non-hazardous materials while in 10-day transit, staging of spill response equipment and offsite industrial cleaning are the majority of the work performed today at the site.

CHES wishes to restart a non-hazardous sludge waste solidification process that was performed at the site in the late 90s.

CHES had previously operated as a Clean Water Act wastewater treatment facility under authorization of permit issued by South Central Wastewater Authority of Petersburg, VA. The permit has since been rescinded, however CHES is available to reapply at a latter date.

More information about the site can be found online at the following corporate website:
http://www.cleanharbors.com/Sites/TD_Site/Hopewell/hopewell.html

The Facility is located at latitude 37° 15'23" North and longitude 77° 16'01' West.

Typical wastes handled at the CHES Facility include the following:

1) Miscellaneous Hazardous and non-hazardous wastes in bulk, drum and laboratory packs are stored in a less then 10-day temporary trailer storage area while in transit to the disposal facility.

2) Petroleum, Oils and Lubricants, are stored onsite as waste material recovered from spills at CHES client and spill sites. These wastes are stored in the dike area prior to disposal.

5.1 Area Geology and Hydrogeology:

Geology

The site is underlain by the Bacons Castle Formation (upper Pliocene, Coch 1963), which is characterized by gray, yellowish-orange, and reddish-brown sand, gravel, silt and clay. This formation constitutes surficial deposits of a high plain extending from Richmond, eastward to the Surry scarp. This particular unit is characterized by massive to thick-bedded pebble and cobble gravel grading upward into cross-bedded, pebbly sand and sandy and clayey silt. The thickness of this unit is approximately 0 to 70 feet.

The site topography slopes gently to the northeast from an elevation of approximately 150 feet above mean sea level.

The facility is not located within the 100-Year Flood Plain; (ESRI-FIRM Map – Hopewell, VA).

Hydrology and Hydrogeology

The facility is located in the central section of Virginia, bordered by the fall zone on the east and the Blue Ridge Mountains on the west, is known as the Piedmont province, and is Virginia's largest physiographic region. The region is largely dominated by igneous and metamorphic rocks, as well as some areas of sedimentary rocks. No extensive unconsolidated geologic deposits overlie the bedrock of the Piedmont; fractures and faults in the bedrock store and transmit ground water. The size and number of water-bearing fractures decrease with depth, so significant water supplies are generally limited to within a few hundred feet of the surface.

Ground water production potential is much lower in the Piedmont then in the Coastal Plain. Well yields commonly range from 3 to 20 gallons a minute; yields in excess of 50 gallons a minute are considered exceptional. Fairly large yields of water may be obtained where fracture and fault systems are extensive, as in the western Piedmont along the base of the Blue Ridge

Mountains. In some places, disintegration and decomposition of the granite bedrock form a zone of granular material, which serves as an aquifer that can supply modest quantities of water to shallow wells. Such aquifers are generally not very thick and recharge is slow since the overlying soil is mostly composed of clay. Groundwater frequently contains relatively large amounts of iron and sulfur. Areas of sandstone and shale are scattered throughout the Piedmont, and bedrock is usually within 2 to 10 feet of the surface. Beds of sandstone and conglomerate (fragments of rock or pebbles cemented together by another mineral substance) in these basins can serve as fair to moderately good aquifers (Virginias Guide to Groundwater, VIRGINIA POLYTECHNIC INSTITUTE 1999).

Groundwater at the site has been recorded between 10 and 20 feet below grade.

The average annual rainfall for Hopewell, VA is 45" (2005 Crater Planning District Commission).

5.2 Wastes Generated at the Facility:

The following summarizes the wastes typically stored at the facility. This summary included past and current uses by CHES.

- Used Petroleum, Oils and Lubricants from spill cleanup, wastewater disposal, Semisolids and solids.
- Hazardous / Non-Hazardous Flammables, Corrosives, Reactives and Toxics are stored in tractor-trailers while in 10-day transit to the disposal facility.
- Impacted stormwater that falls inside of containment areas. Waters are stored in two (2) onsite frac tanks.
- Misc empty and partially empty chemical totes and drums from Industrial cleaning projects.

6.0 Description of all Solid Waste Management Units (SWMUs) and/or Areas of Concern.

6.1 AOC - 1 Temporary HazWaste Trailer Parking area:

Hazardous and Non Hazardous waste that CHES has been tasked to dispose of is temporarily stored in tractor-trailers during the 10 day in transit period (Photo #1). Typically, two (2) trailers are stored onsite separating the oxidizers from the flammables. During the site visit it was suggested to CHES that these trailers should be stored in a secondary containment area. CHES agreed with that recommendation and indicated that portable dike system would be procured.

No evidence of spill or releases were noted during the site inspection or described by CHES personnel. To the knowledge of CHES Hopewell Personal, no release of hazardous constituents has occurred from these trailers.

6.2 AOC - 2 Former Tank Farm:

The former tank farm (Photo# 2) gasoline tank T-101 and Oil Water Separator was approved closed by the VDEQ in documentation dated March 30, 2000.

No evidence of spill or releases were noted during the site inspection or described by CHES personnel. To the knowledge of CHES Hopewell Personal, no release of hazardous constituents has occurred from this tank farm.

An Environmental Site Assessment completed in 1994 and provided by CHES after the 2005 site visit, shows a soil sample (S-1) collected from this area. Upon review of the Site Assessment, sample S-1 was found to be non-detect for all compounds with the exception of Total Petroleum Hydrocarbons-Oil & Grease at a level of 170 mg/kg.

6.3 AOC - 3 Office / Laboratory:

A small laboratory was located inside of the main building. The lab was used primarily to verify characteristics of incoming material to the tank processing area and to confirm discharges to the local publicly owned treatment works.

No evidence of spill or releases were noted during the site inspection or described by CHES personnel. To the knowledge of CHES Hopewell Personal, no release of hazardous constituents has occurred from this Laboratory.

6.4 AOC - 4 Roll off Storage Area:

The roll off storage area is for temporary storage of 20 cubic yard rolloffs following the cleanup of a spill or the removal of waste material from an industrial cleaning operation (Photo #3). The rolloffs are typically stored in the contained truck loading area.

No evidence of spill or releases were noted during the site inspection or described by CHES personnel. To the knowledge of CHES Hopewell Personal, no release of hazardous constituents has occurred from this storage area.

6.5 AOC - 5 Self contained 10,000-gallon storage tank:

A self-contained 10,000-gallon storage tank was in use along the back fence of the property (Photo #4). During the site visit, this area is now used for parking of vacuum trucks and quick response trailers.

No evidence of spill or releases were noted during the site inspection or described by CHES personnel. To the knowledge of CHES Hopewell Personal, no Release of Hazardous Constituents has occurred from this tank.

6.6 AOC - 6 Solidification Pan:

A steel pan is onsite that was once used in a CHES solidification process (Photo #5). This process was discontinued by CHES in October of 2004. At the time of this report, CHES wishes to reinstitute that process.

The pan sits on a concrete paved area, and no evidence of spill or releases were noted during the site inspection or described by CHES personnel. To the knowledge of CHES Hopewell Personal, no release of hazardous constituents has occurred from this Process.

6.7 SWMU - 1 Tote and Frac Tank Laydown area:

Numerous empty drums and empty and partially empty chemical totes (275 gallon) are stacked immediately to the southwest of the truck unloading area (Photos #7 through #9). Two 20,000-gallon frac tanks are staged along the western fence line and are used for storage of water collected in the containment areas.

During the site visit multiple soil stains were noted in this area of the totes and drain valves from the Frac Tanks. At the time of the site visit, two totes were ½ full of an unknown liquid. One stainless steel tote in particular was seen to have an open bottom drain and a white precipitated solid that had flowed out (see photo #8).

Subsequent correspondence from CHES indicated that the white solid was a detergent and that the unknown liquid was a PCB oil/water mixture. Both materials will be removed from the site. Additionally, CHES has indicated that stained soils near the frac tank and totes have been excavated and sent off site for thermal destruction. As an additional preventive measure CHES has implemented the use of drip pans during tank draining and hose repair work to prevent discharges to the surface.

Upon review of the 1994 Site Assessment, sample S-5 was found to relate approximately to this area. Sample S-5 was non-detect for all compounds with the exception of Total Petroleum Hydrocarbons-Oil & Grease at a level of 380 mg/kg.

6.8 SWMU - 2 Soil Pile:

A Phase 2 Site Assessment describes sampling of a soil pile outside of the CHES fence on the west corner of the property. The Site Assessment was not available for review; however the site maps from the assesment indicated the existence of this pile. The pile is shown to be on the outside of the fence line of the site; however, currently this area is a gravel lot with buildings not associated with CHES.

No indications of this pile could be found during the recent site visit and current CHES personnel had no knowledge of it. Upon review of the 1994 Site Assessment provided by CHES, soil sample (S-6) was collected from approximately this area. Sample S-6 was found to be non-detect for all compounds analyzed with the exception of Total Petroleum Hydrocarbons-Oil & Grease at a level of 57 mg/kg.

6.9 Additional Areas:

Following the August 2005 site visit, CHES supplied the August 1994 Environmental Site Assessment for assistance in the preparation of this report. Several sections of report were missing upon receipt including site maps showing location of samples. The report did provide the most recent soil and groundwater sampling data for the site with narrative descriptions that could be correlated with several of the SWMUs and AOCs listed above.

Analytical results of surface soil samples collected during this Assessment were non-detect for all parameters analyzed with the exception of Total Petroleum Hydrocarbons-Oil & Grease. Levels of this parameter throughout the site ranged from 57 mg/kg up to 9,900 mg/kg.

Groundwater sampling for this Assessment was also conducted. The only significant compound detected was the common gasoline additive MTBE. Levels detected were 79 ug/L in MW-2 and 48 ug/L in the existing supply well. Both wells were located near the western edge of the property but were not located during the 2005 site visit.

7.0 Description of Exposure Pathways for all Releases or Potential Releases.

7.1 Air:

The greatest current hazard for a release of a hazardous waste or constituents to the air would be the simultaneous release of incompatible materials from the 10-day staging area. This scenario is unlikely since the materials are in transit and containers of suspect integrity should not be manifested and put into transit. Also the volumes of hazardous waste kept in this location and the amount of time they are stored make this type of release unlikely.

The population of the 10.2 square miles that encompasses Hopewell, Virginia is approximately 24,000. The nearest residential area is ½ mile north of the site.

7.2 Surface Waters:

A storm water retention pond exists immediately north of the site. This pond receives all surface runoff from the facility.

The next closest water body is an unnamed tributary of Manchester Run which is approximately 1 miles to the northeast of the site.

7.3 Groundwater:

Most of the groundwater is found within a few hundred feet of the surface because the occurrence of fractures and faults, which store water in bedrock, decreases with depth. Depth to groundwater at the site has been recorded at 10 to 20 feet below grade.

The subsurface geology of the Piedmont province is diverse, resulting in wide variations in groundwater quality and well yields. Where fractures and faults are extensive, the greatest yields occur, such as in the western Piedmont along the base of the Blue Ridge Mountains.

Groundwater is generally of good quality; in a few areas, high iron concentrations and acidity cause problems.

Based on the 1994 Assessment, groundwater in the area flows generally to the south west with a shallow hydraulic gradient of approximately 0.01.

Much of the CHES Hopewell facility is unpaved with a porous stone surface.

7.4 Soils:

During the site visit, numerous stained patches of gravel were found at the tote and frac tank laydown area. In addition to the stained soil patches, a white solidified material was discovered around a drain valve to a 275-gallon stainless steel tote.

The potential of a release at the Tractor Trailer 10 day staging area exist because the trailers are not contained and store potentially hazardous materials and waste. Because of this release potential, CHES will provide a portable dike containment system in case of a spill.

8.0 Exposure Pathway Controls and Release Controls Instituted at the Facility.

8.1 Site Access:

The facility operation area, which comprises 1.7 acres of the 4.3-acre site, is completely fenced. Empty hazardous waste rolloffs owned by trucking company Robbie D Wood is staged outside the fence along the back of the property.

8.2 Air:

No air controls are in place.

8.3 Surface Water:

Surface water is not used as a drinking water supply in the immediate vicinity of the facility. The drinking water for the area around the facility is supplied primarily by the municipal system.

A storm drain that flowed from the site to the adjacent stormwater pond was closed and filled with concrete. The location of the former storm drain and the associated outfall are shown on the site plan. It is not known to current CHES personnel when the storm drain was closed.

Surface drainage is also controlled by the means of masonry block retaining walls around the former tank process area and around the truck unloading area. Both containment areas are drained by means of drain sumps. Water from the sumps is routinely pumped to two (2) onsite frac tanks. The contents of the tanks are sent off for disposal.

CHES does not maintain a Virginia Pollution Discharge Elimination System Stormwater Permit. No discharges are permitted from contained or process areas.

CHES had previously operated as a Clean Water Act wastewater treatment facility under authorization of permit issued by South Central Wastewater Authority of Petersburg, VA (Permit No. 18). The permit has since been rescinded; however CHES is available to reapply at a latter date.

8.4 Groundwater:

Operational procedures are used to minimize the release of contaminated substances to the groundwater at the CHES facility. These procedures include paved areas and masonry block containment areas where waste or waste containers are stored. Several wells exist on the property; however there is no current monitoring program for these wells.

8.5 Soil:

The site is not in close proximity to residential areas, minimizing the opportunity for off-site residential exposure. Fencing preventing public access to the site surrounds the property.

Several pathway or release controls are in place at this facility to control discharges to soil. These include secondary containment in the form of concrete block bermed areas, and concrete paving in some equipment laydown areas. No release controls, separate from the integrity of the individual containers, are in place in the area of AOC–1, the Temporary HazWaste Trailer Parking area and SWMU-1, the Tote and Frac Tank Laydown area.

9.0 Follow-up Action Items.

- CHES will decide if they wish to enter into the Facility Lead Agreement process.

- CHES indicated that Stained soils around SWMU -1 would be removed. Photo documentation was also requested for this removal. Additionally, half full totes of oily water and the stainless steel tote with the white precipitated solid would also be removed. Subsequent discussions with Mannie Bell of CHES indicate that this has been completed.

- CHES also indicated that the Temporary Hazwaste Trailers at AOC-1 would be placed in a containment area.

- USEPA Region III will decide if additional information or sampling at the facility is required to determine whether or not corrective action is required by the facility...

References
File Review Documentation
Chemical Waste Management: Currently Clean Harbors
EPA ID# VAD988175055

(All documents reviewed as part of this report were scanned and are provided on the attached compact disk)

Belpar: Solid Waste Variance for Petroleum Recycling October 4, 1990
Belpar is requesting a variance from classifying as solid waste materials that have been reclaimed from underground and above ground storage tank operations that will be reclaimed further before recovery is complete.

HazWaste Application Permit January 23, 1992
CWM submitted a Hazardous Waste Permit Application Part A on January 20, 1992 describing the facility operations and including facility photos.

DEQ and EPA Letter September 13, 1993
Cover letter for an updated form of Notification of Hazardous Waste Activity by replacing the 10k and 5k ASTs with a single 15k AST. Auxiliary equipment was also replaced.

ERM (Consultant) Letter to Clean Harbors May 28, 1994
Proposal to Clean Harbors to perform a Due Diligence Site Assessment prior to Clean Harbors Acquisition of CWM. Phase 1 and Phase 2 assessments are proposed.

CHES to EPA Notice of Ownership Change September 27, 1994
Notification that ownership change will be official on September 30, 1994.

RUST (Consultant) Tank Closure Certification February 19, 1996
RUST performed a tank closure on a 5,000 and a 10,000-gallon ASTs onsite. According to the '92 HazWaste Permit Application, these are the only two tanks onsite that are greater then the two 500-gallon process tanks onsite.

DEQ Tank Closure Certification Approval December 6, 1996
DEQ performed a site visit on November 20, 1996 and approves the February 19, 1996 closure certification of the 10k and 5k ASTs.

Excerpt of what appears to be a Facility Description February 28, 1997
Three pages of Text and one USGS topo map describing in detail the facility, operations and surroundings.

DEQ Part B Application Review May 19, 1997
Letter references 25 omissions or revisions required to the Part B application.

DEQ internal memo - Excerpt of a possible Facility Description April 15, 1998
Pages refer to 4 current SWMU
- Tank Farm and Processing Area
- Self Contained 10k Tank
- Roll off Storage Area
- Office/Laboratory

1 Former /Closed SWMU

Tank Farm Processing Area – 5k and 10k tanks

1 Proposed SWMU

Tank Farm and Processing Area – 2 additional filter units and pumps requested under Part B Application

Text also lists 4 used oil releases between ’94 and ‘96

DEQ Approval of Closure Plan September 21, 1999
DEQ disagreeing with EPA thus stating the Closure per VHWMR will be required

DEQ Partial Closure Verification for T-101 and OWS March 30, 2000
Closure on the referenced unit was performed in accordance with the approved closure plan. Closure of the secondary systems associated with these units is still being pursued.

DEQ Request for Additional information on Closure Report December 20, 2000
Request for sampling of a crack that was missed during the initial sampling and requesting REAMS report be submitted.

URS (Consultant) revised closure report and certification April 2, 2001
Report I response to DEQ’s 12/20/00 request

DEQ Secondary Containment Structure Closure Verification June 1, 2001
This letter verifies from the DEQ that closure has been achieved.

DEQ RCRA Part B Permit Application Withdrawal August 27, 2001
This letter acknowledges the closure of the secondary containment associated with RCRA Part B and therefore withdrawals the RCRA Part B permit application

CHES submits Part B application at request of VA DEQ February 27, 1997
CHESI had been operating under Interim Status, but Part B application had to be submitted in order to continue pursuing fully permitted status.

DEQ responds to Part B application and requests additional information March 18, 1998

CHES requests to DEQ to operate as a CWA exempt facility April 7, 1998
CHES and receive RCRA hazardous wastes for wastewater treatment

CHES requesting extension from DEQ for response to DEQ 3/18/98 letter April 10, 1998
Extension granted to July 8, 1998 by the DEQ

DEQ to CHES re. RCRA wastes exempt from Clean Water Act (CWA) April 15, 1998
DEQ states that this is not allowed based on EPA guidance documents

CHES submits to DEQ new EPA guidance regarding CWA exempt facilities April 16, 1998

CHES letter to DEQ withdrawing Part B application July 7, 1998
CHES states closure will be initiated, and also requests that DEQ re-review their stance on the CWA exemption

DEQ acknowledging Part B withdrawal and reverses stance on CWA exemption July 17, 1998
DEQ will review CHES’ closure plan. DEQ also and says CHES can operate as CWA exempt facility and receive RCRA wastes

CHES partial closure report February 4, 2000
Closure of Tank 101 and the o/w separator

CHES submits to DEQ final closure report and certification July 5, 2000

CHES clarifying location of one of the containment sampling locations November 10, 2000

CHES renewal application for wastewater treatment discharge permit late 2001/eary 2002
Permit to South Central Wastewater Authority (SCWWA) Permit was issued on May 20th, 2002

CHES AST registration renewal November 2002

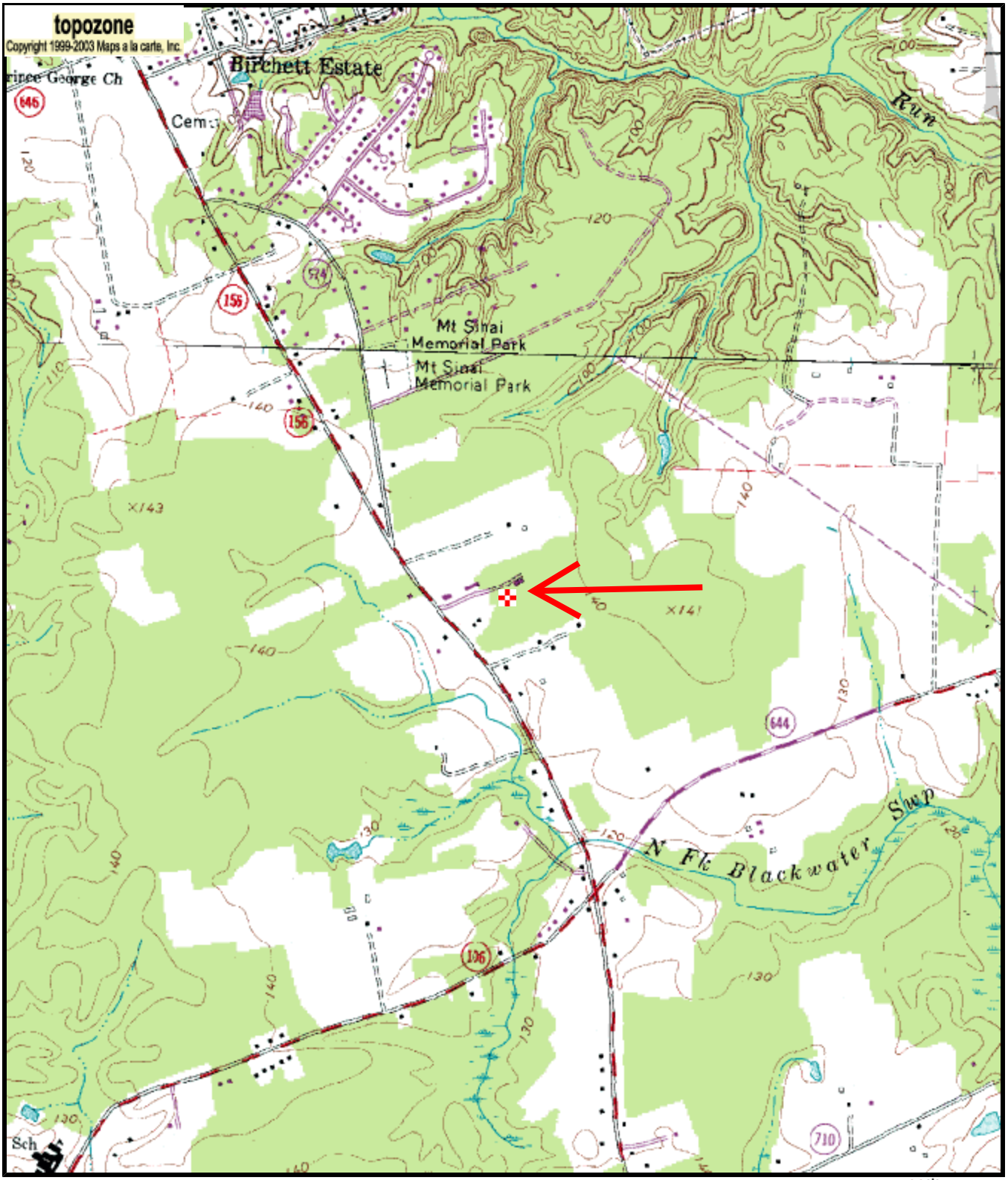
CHES letter to SCWWA requesting permit be rescinded September 17, 2003
CHES would also like to be allowed to reapply for new permit (if so desired at a later date) as an "existing" facility under the CWT regulations. Permit was rescinded on November 11, 2003

SCWWA letter to CHES regarding final inspection February 17, 2004
SCWWA stating that they conducted the required final inspection of the facility everything was in order and details that CHES may reapply later as an "existing" CWT facility if all treatment equipment is maintained (CHES had confirmed via phone calls with Mr. Ed Waskey of the SCWWA that removal of the two carbon adsorption units for recycling would not interfere with this decision)

CHES revised Site Identification Form (SIF) to DEQ May 17, 2004
Form changing generator status from Large Quantity Generator (LQG) to Conditionally Exempt Small Quantity Generator (CESQG)

EPA acknowledges receipt of revised SIF and they've updated their records June 11, 2004

FIGURES:



Map center is 37° 14' 34"N, 77° 16' 04"W (WGS84/NAD83)
Prince George quadrangle
Projection is UTM Zone 18 NAD83 Datum

Figure 1: USGS topographic Map showing the location of the site

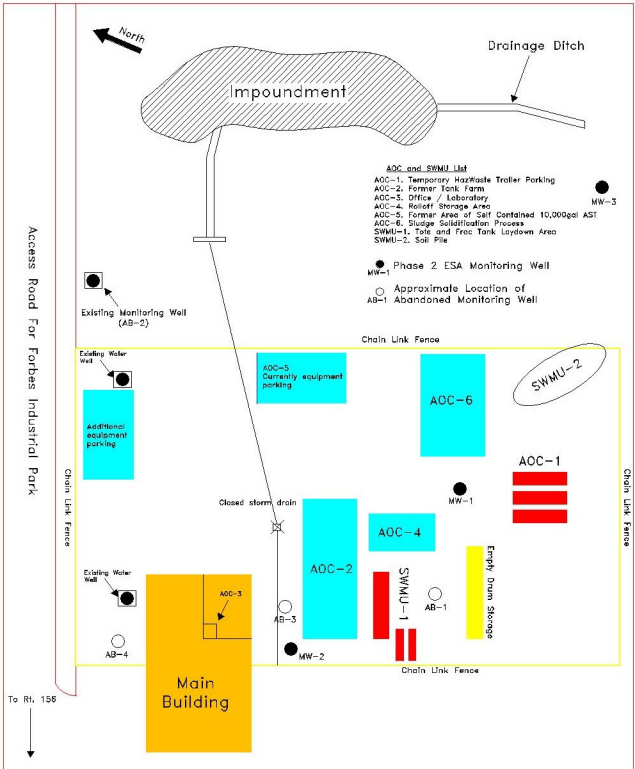
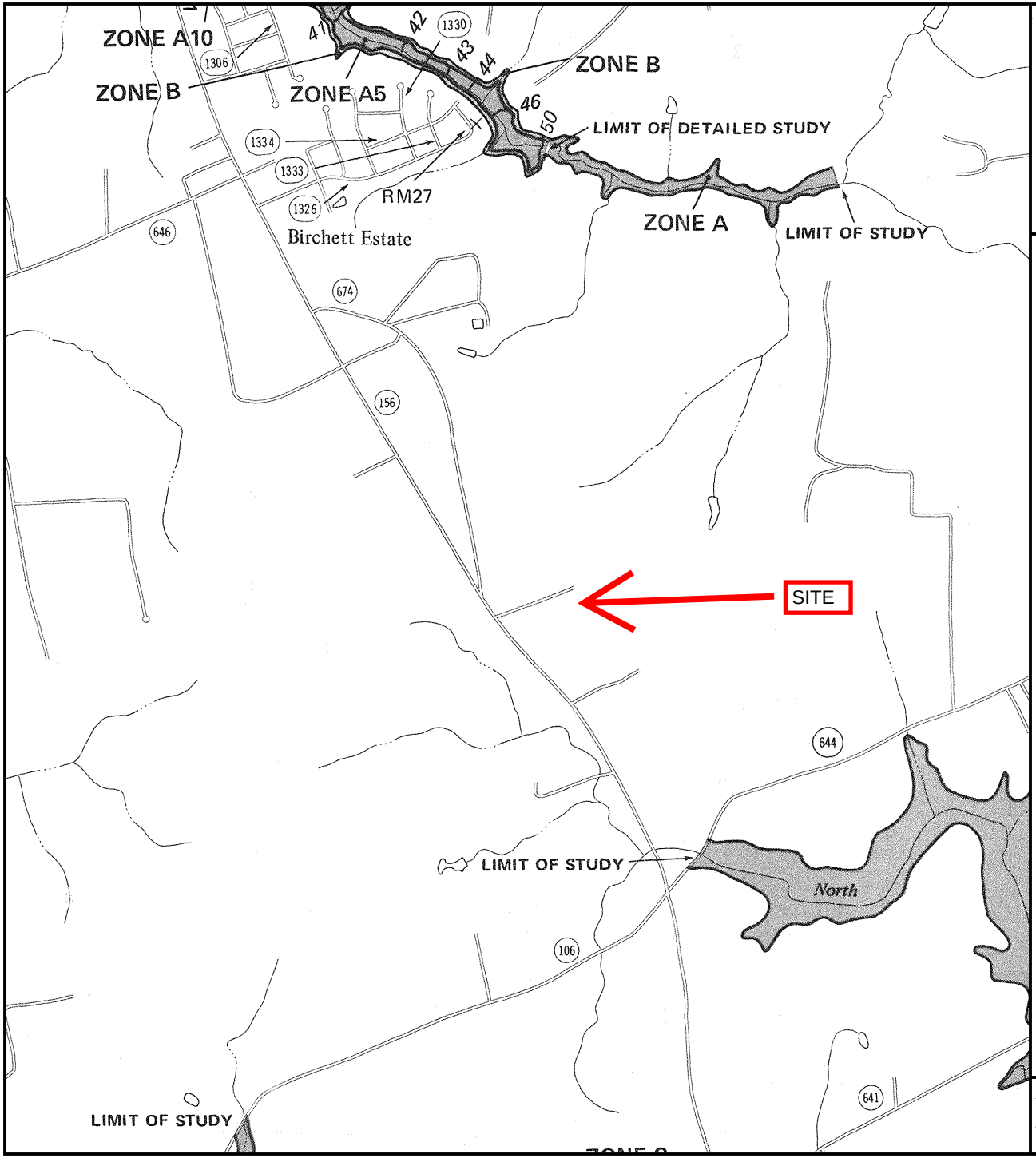


Figure 2: CHES Hopewell Facility – AOC and SWMU Locations

Figure is based on a 1995 Phase 2 Site Assessment and is Not to Scale



N

APPROXIMATE SCALE

2000 0 2000 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

PRINCE GEORGE COUNTY, VIRGINIA

(UNINCORPORATED AREAS)

PANEL 25 OF 100

(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
510204 0025 A

EFFECTIVE DATE:
MAY 1, 1980

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
FEDERAL INSURANCE ADMINISTRATION

APPENDICES:

APPENDIX A

FACILTY LEAD AGREEMENT

FACILITY LEAD CORRECTIVE ACTION AGREEMENT

I. CORRECTIVE ACTION GOALS

By agreeing to participate in the Facility Lead Corrective Action Program with EPA, the Facility commits to:

A. Determine the extent and sources of all releases of hazardous wastes or hazardous waste constituents at or from the Facility using quality data;

B. Evaluate and meet EPA's Environmental Indicators (see "Environmental Indicator Forms" on EPA Region III's website at www.epa.gov/reg3wcmd/ca/ca_resources.htm);

C. Perform interim measures at the Facility to prevent or mitigate unacceptable threats to human health and the environment by: 1) controlling human exposures, and 2) controlling migration of any groundwater contamination at or from the Facility from releases of hazardous wastes or hazardous constituents;

D. Conduct effective public involvement; and

E. Communicate regularly to EPA, the State, and the community on corrective action progress at the Facility.

EPA agrees to provide an appropriate level of oversight to assist the Facility to meet these goals.

II. WORK TO BE PERFORMED

The Facility agrees to demonstrate achievement of the goals listed in Section I by performing the work (as appropriate) described below. These goals may be achieved through a combination of sampling activities, previous work, and documentation of valid historical data.

A. Develop a Workplan

1. Within ninety (90) calendar days of the date of its Commitment Letter, the Facility agrees to submit a site specific Workplan to EPA. The Workplan is subject to approval by EPA and shall include a strategy and schedule to implement pertinent tasks identified in this Agreement, which include, but are not limited to, the following:

a. Site characterization (Section II.B)
b. Quality Assurance and Sampling Plan (Section II.B and D)
c. Evaluation of Environmental Indicator goals (Section II.C)
d. Ongoing or planned Interim Measures (Section II.D)
e. Community Relations Plan (Section II.E)
f. Reports to EPA (Section II.F and IV)
g. Selection of a land use scenario (Section II.B)

2. The Facility may also add other tasks to the Workplan.

B. Determine the extent and sources of releases of hazardous wastes or hazardous constituents at or from the Facility using quality data.

1. Site Characterization - The Facility will develop a site specific workplan that determines the nature and extent of all releases of hazardous wastes and hazardous constituents at or from the Facility. The characterization will include investigative tasks such as sampling, analyses, data validation and data interpretation and will be conducted in a manner consistent with the provisions of Region III's guidance for a "RCRA Facility Investigation" and guidance for "Risk-Based Screening". (see EPA Region III's website at www.epa.gov/reg3wcmd/ca/ca_resources.htm for these two guidance documents). Other corrective action references are also available on this website. At a minimum, the Facility shall perform the following:

a. Soil - Identify maximum concentrations and determine the extent of any releases of hazardous wastes and hazardous constituents to soil. Sampling shall continue until concentrations in soil reach Region III's Risk-Based Concentration (RBC) Table using an appropriate land use scenario approved by EPA (see "Region 3 Risk-Based Concentration Table" at www.epa.gov/reg3wcmd/ca/ca_resources.htm). In addition, evaluate the potential of hazardous wastes and hazardous constituents in soil to affect other media through cross media transfer (e.g., screening against Soil Screening Levels "SSLs" for groundwater).

b. Groundwater - Determine maximum concentrations of hazardous wastes and hazardous constituents in groundwater and, to the extent practicable, the source of the groundwater contamination. The horizontal and vertical extent of any releases to groundwater shall be delineated until concentrations of hazardous wastes and hazardous constituents in groundwater reach maximum contaminant levels ("MCLs"), or, where no MCLs have been promulgated, Region III's Risk-Based Concentration (RBC) Table using the tap water column, independent of whether the aquifer is currently utilized as a source of potable water.

c. Surface Water and Sediment - Where contaminated groundwater potentially discharges to a surface water body, determine the maximum concentrations of hazardous wastes and hazardous constituents in surface water and sediment, and assess the extent of impact of hazardous wastes and hazardous constituents to the surface water body and sediments to levels considering the state-designated use of the surface water body and the potential exposure to human and/or ecological receptors.

d. Air - Where there is the potential for indoor or outdoor air to be contaminated by particulates or vapors through cross-media transfer, determine the maximum concentrations through appropriate methods (e.g., sampling, modeling).

2. Data Quality - The Facility agrees to perform site screening and site characterization through the use of high quality field data collection protocols and appropriate EPA laboratory methods specified in 2.a and 2.b below such that the analytical results accurately represent site characteristics (see "Quality Assurance/Quality Control" document on EPA Region III's website at www.epa.gov/reg3wcmd/ca/ca_resources.htm). The data collected must support decisions regarding the applicability and effectiveness of interim measures' and/or final remedial decisions. In addition the Facility shall:

a. Ensure that all laboratories used by the Facility for analyses perform such analyses according to the EPA methods included in "Test Methods for Evaluating Solid Waste" (SW-846, November 1986) or other methods deemed satisfactory to EPA;

b. Ensure that all laboratories used by the Facility for analyses participate in a quality assurance/quality control program equivalent to that which is followed by EPA; and

c. Ensure that data is reliable by having it data undergo 3rd party data validation.

3. Exposure Assessment - The Facility agrees to identify all potential exposure pathways.

4. Site Screening - The Facility agrees to use the Screening process specified in the Risk-Based Screening document located on EPA Region III's website.

5. Future Land Use - A "reasonably expected future land use" shall be identified for the facility. (See the discussion in the Advanced Notice of Proposed Rulemaking, May 1, 1996). The Facility shall include a schedule in the Workplan for submitting land use information and a plan for sharing land use assumptions with the public.

C. Evaluate and meet EPA's Environmental Indicators.

1. The Facility agrees to assess current exposures and evaluate potential contaminated groundwater migration pathways as priority activities of the site investigation.

2. The Facility agrees to implement Interim Measures as soon as possible to achieve the Environmental Indicator goals.

D. Perform Interim Measures at the Facility to prevent or mitigate threats to human health and/or the environment.

1. The Facility agrees to implement Interim Measures:

a. When it is necessary to protect human health and/or the environment.

b. To meet the Environmental Indicator goals of eliminating current human exposure to and controlling groundwater contamination from releases of hazardous wastes or hazardous constituents to the extent practicable.

Interim Measures implemented shall be consistent with the long term cleanup objectives at the Facility.

2. The Facility will conduct appropriate monitoring and/or confirmatory sampling of Interim Measures to assess their effectiveness. The quantity, quality, and frequency of the monitoring will be dependent upon the Interim Measures selected.

E. Conduct effective public involvement.

1. The Facility agrees to:

a. Develop a Community Relations Plan which will describe how it will conduct public involvement activities to inform the local community, the State and any other interested parties of activities throughout the corrective action process. EPA guidance for conducting effective public involvement in the RCRA program can be found in the RCRA Public Participation Manual, 1996 Edition. (See EPA's website at www.epa.gov/reg3wcmd/ca/ca_resources.htm)

b. Provide EPA with a fact sheet summarizing the status of the work to date for inclusion on EPA Region III's web page within sixty (60) calendar days of the Letter of Commitment. At a minimum, this fact sheet shall be updated semi-annually.

F. Communicate regularly to EPA, the State, and the community on corrective action progress at the Facility.

1. The Facility agrees to submit:

a. A Letter of Commitment which shall include a proposed time-frame for a meeting with EPA to discuss the known current conditions and to outline the work necessary to meet EPA's Environmental Indicator objectives. The letter will also identify a Facility Project Coordinator, who will be responsible for the implementation of the corrective action activities and serve as the Facility's point of contact.

b. An Environmental Indicators report to EPA and the State when the Facility has collected sufficient data, and taken action as necessary, to control current human exposures to contamination and the migration of any groundwater contamination.

c. A Site Investigation report to EPA and the State when the Facility has identified the nature and extent of all releases of hazardous wastes and/or hazardous constituents at or from the Facility.

d. Annual Progress Reports to EPA and the State summarizing the work performed (including new interim measures), public involvement activities, proposed schedule changes, and a summary of anticipated activities to be conducted over the next year. The first Annual Progress Report shall be submitted to EPA and the State one year from the date of the Letter of Commitment.

e. In addition to the written reports identified above, the Facility may choose to present information to EPA in the form of oral presentations and request EPA comment on technical issues or proposed actions.

III. FINAL REMEDIES - COMPLETING CORRECTIVE ACTION

Eliminating human exposure to hazardous wastes and hazardous constituents and controlling migration of contaminated groundwater are short-term corrective action objectives. Interim Measure activities implemented to achieve these short-term objectives are based on reasonably expected human exposures under current land and groundwater use conditions. The RCRA Corrective Action Program's overall mission is to protect human health and the environment. To achieve this goal, final remedies must be based on potential future land and groundwater uses and ecological receptors.

A. At the completion of site characterization activities, EPA will evaluate the need to issue a Corrective Action Permit or Order to the Facility.

B. Under certain circumstances' implementation of Interim Measures may achieve the final remedial goals. In that case, EPA will public notice a tentative determination and solicit comment prior to making a final Agency determination regarding final corrective action remedies at the Facility.

IV. CERTIFICATION

Reports specified in Section II. F.1.b, Section II.F.1.c and Section II.F.1.d, when submitted to EPA and the State, shall be certified by a "responsible corporate officer[1]." The Facility agrees to provide the certification in the following form:

> I certify that the information contained in this Report is true, accurate, and complete.
>
> As to [the/those identified portion(s)] of this [type of submission] for which I cannot personally verify [its/their] accuracy, I certify that this Report and all attachments were prepared in accordance with procedures designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, or the immediate supervisor of such person(s), the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.
>
> Name: Title: Signature :

V. SAMPLING AND DATA/DOCUMENT AVAILABILITY AND PRESERVATION

A. The Facility shall submit to EPA the results of all sampling and/or tests or other data generated by, or on behalf of, Facility.

B. At the request of EPA, the Facility shall provide or allow EPA or its authorized representatives to take split or duplicate samples of all samples collected by Facility pursuant to this Agreement. The Facility agrees not to limit access to the property or otherwise affect EPA's authority to collect samples pursuant to applicable law, including, but not limited to, RCRA and CERCLA.

C. The Facility may assert a business confidentiality claim covering all or part of any information submitted to EPA pursuant to this Agreement in the manner described in 40 C.F.R. § 2.203(b). The Facility shall not assert any confidentiality claim with regard to any physical, sampling, monitoring, or analytical data.

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[1] A "responsible corporate officer" means: (a) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or (b) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. A person is a "duly authorized representative" only if: (1) the authorization is made in writing by a person described above; and (2) the authorization specifies either an individual or position having responsibility for overall operation of the regulated facility or activity (a duly authorized representative may thus be either a named individual or any individual occupying a named position).

D. Commencing on the date the Letter of Commitment is submitted to EPA, the Facility agrees that it shall preserve and make available to EPA for inspection and copying, all data, records and documents in its possession or in the possession of its divisions, officers, directors, employees, agents, contractors, successors, and assigns which relate in any way to this Agreement or to hazardous waste management and/or disposal at the Facility.

VI. RESERVATION OF RIGHTS

A. EPA reserves all of its statutory and regulatory powers, authorities, rights, and remedies, both legal and equitable, which may pertain to the Facility's activities. This Agreement shall not be construed as a covenant not to sue, release, waiver, or limitation of any rights, remedies, powers, and/or authorities, civil or criminal, which EPA has under RCRA, CERCLA, or any other statutory, regulatory, or common law authority of the United States.

B. EPA reserves the right to disapprove work performed by the Facility pursuant to this Agreement and to request or direct that Facility perform additional tasks.

C. EPA reserves the right to require or to perform any portion of the work consented to herein or any additional site characterization, feasibility study, and remedial work as it deems necessary to protect human health and/or the environment. EPA may exercise its authority under CERCLA to undertake response actions at any time. EPA reserves its right to seek reimbursement from the Facility for costs incurred by the United States. Notwithstanding compliance with the terms of this Agreement, the Facility is not released from liability, if any, for the costs of any response actions taken or authorized by EPA.

D. If EPA determines that activities undertaken pursuant to this Agreement have caused or may cause a release of hazardous waste or hazardous constituent(s), or a threat to human health and/or the environment, or that the Facility is not capable of undertaking the work agreed upon, EPA may order the Facility to stop further implementation of activities undertaken pursuant to this Agreement for such period of time as EPA determines may be needed to abate any such release or threat and/or to undertake any action which EPA determines is necessary to abate such release or threat.

E. EPA and the Facility acknowledge and agree that EPA's approval of any Statements of Work (SOWs) or any workplan submitted pursuant to this Agreement does not constitute a warranty or representation that the SOWs or workplans will achieve the required cleanup or performance standards. Compliance by the Facility with the terms of this Agreement shall not relieve it of its obligations to comply with RCRA or any other applicable local, state, or federal laws and regulations.

F. Notwithstanding any other provision herein, no action or decision by EPA pursuant to this Agreement, including without limitation, decisions of the Regional Administrator, the Director of the Waste and Chemicals Management Division, or any authorized representative of EPA, shall constitute final agency action giving rise to any right of judicial review prior to EPA's initiation of an enforcement action, including an action for penalties or an action to compel the Facility's compliance with RCRA.

G. Notwithstanding any other terms or conditions in this Agreement, EPA may decide to issue a Corrective Action Permit or Order to the Facility at any time.

H. Indemnification: The Facility agrees to indemnify and save and hold harmless the United States government, its agencies, departments, agents, and employees, from any and all claims or causes of action arising from or on account of acts or omissions of the Facility or its officers, employees, agents, independent contractors, receivers, trustees, and assigns in carrying out activities required by this Agreement. This indemnification shall not be construed in any way as affecting or limiting the rights or obligations of the Facility or the United States under their various contracts. The Facility shall not be responsible for indemnifying the EPA for claims or causes of action solely from or on account of acts or omissions of EPA.

VII. OTHER APPLICABLE LAWS

All actions shall be undertaken in accordance with the requirements of all applicable local, state, and federal laws and regulations. The Facility shall obtain or require its authorized representatives to obtain all permits and approvals necessary under such laws and regulations.

VIII. NOTICE OF NON-LIABILITY OF EPA

EPA shall not be deemed a party to any contract involving the Facility and relating to activities at the Facility and shall not be liable for any claim or cause of action arising from or on account of any act, or the omission of the Facility, its officers, employees, contractors, receivers, trustees, agents or assigns, in carrying out the activities required by this Agreement.

IX. EFFECTIVE DATE

The effective date of this Agreement is the date of the Letter of Commitment submitted by the Facility to EPA.

APPENDIX B

PHOTODOCUMENTATION

PHOTODOCUMENTATION
Clean Harbors (Formerly Chemical Waste Management)
VAD988175055

7500 Harvest Road
Hopewell VA

Photo #1 Hazardous and Non Hazardous waste stored in tractor-trailers during the 10 day in transit period

Photo #2 Former tank farm

Photo #3 The roll off storage area for temporary storage of 20 cubic yard rolloffs following the cleanup of a spill or the removal of waste material from an industrial cleaning project

Photo #4 The area of the former self-contained 10,000-gallon storage tank – currently in use as trailer and equipment staging

Photo #5 A steel pan and sludge area that was once used in a CHES solidification process

Photo #7 Frac tanks used for the storage of wastewaters and containment area stormwater.

Photo #8 Staging area for empty totes – note white precipitated solid from tote drain.

Photo #9 Staging area for empty totes – note soil staining in lower left of photo